

INSTITUT DE RECHERCHE EN INFORMATIQUE FONDAMENTALE



A perspective on the scientific trajectory of SIROCCO during 30 years

Pierre Fraigniaud

30th Colloquium on Structural Information & Communication Complexity (SIROCCO) Alcala de Henares, Spain, June 6-9, 2023

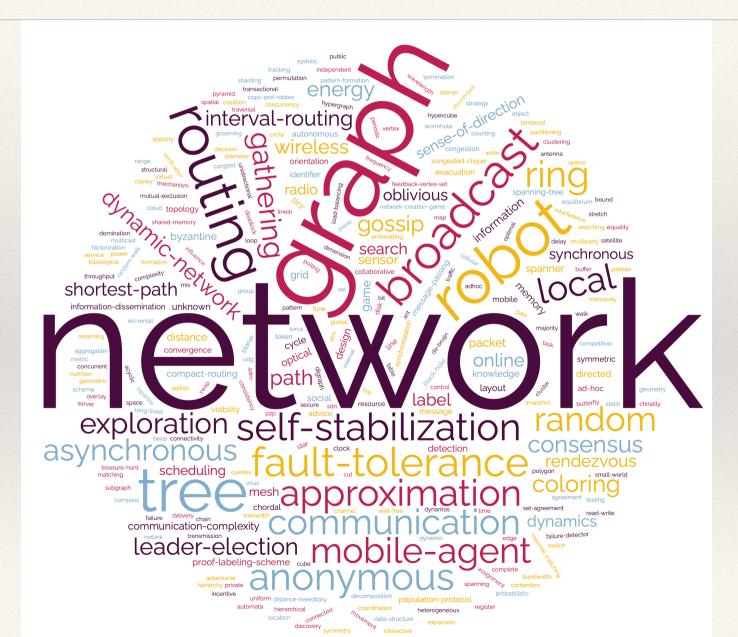
# When everything begins

1st SIROCCO, Carleton University, Ottawa, Canada, May 18-20, 1994

#### **Scientific Program**

- Sense of Direction: Formal Definitions and Properties
- Trade-off Between Computational Power and Common Knowledge in Anonymous Rings
- Orientation of Distributed Networks: Graph- and Group- Theoretic Modelling
- Labeled versus Unlabeled Distributed Cayley Networks
- Classifying Anonymous Networks
- Compact Routing Methods
- Interval Labeling Scheme for Chordal Rings
- Fault-Tolerant Compact Routing Based on Reduced Structural Information in Wormhole-Switching Based Networks
- The Buffer Potential of a Network
- Path Layout in ATM Networks

#### Where SIROCCO Stands 30 Years Later



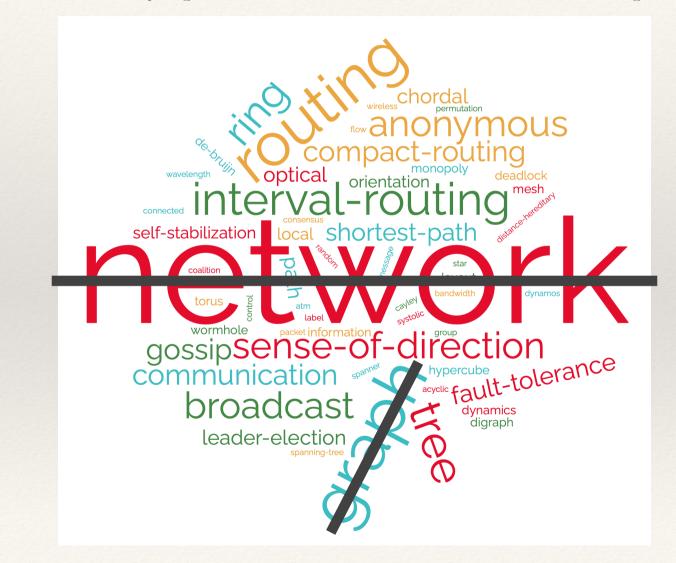
## What SIROCCO is about?

- SIROCCO is devoted to the study of the *interplay* between structural knowledge, communication, and computing in decentralized systems of multiple communicating entities.
- Special emphasis is given to innovative approaches leading to better understanding of the *relationship* between computing and communication.

## Scientific Trajectory

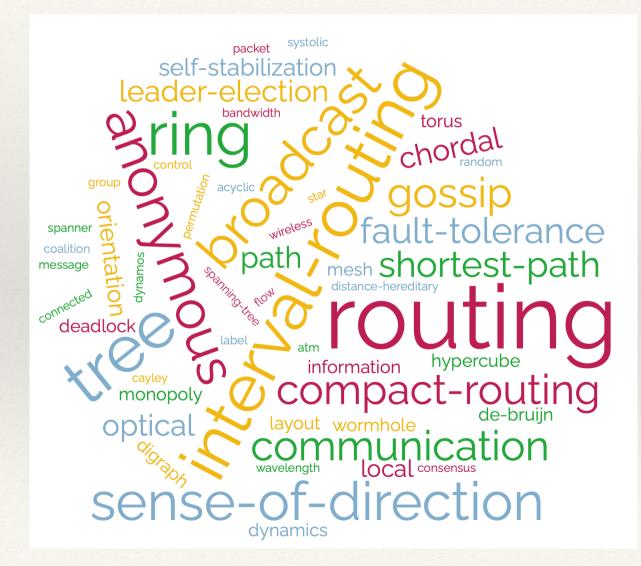
## The Infancy 1994-2000

Ottawa, Olympia, Siena, Ascona, Amalfi, Lacanau, L'Aquila



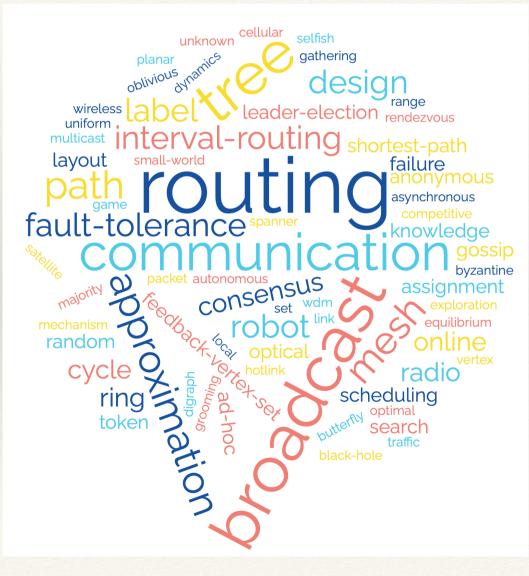
## The Infancy 1994-2000

Ottawa, Olympia, Siena, Ascona, Amalfi, Lacanau, L'Aquila



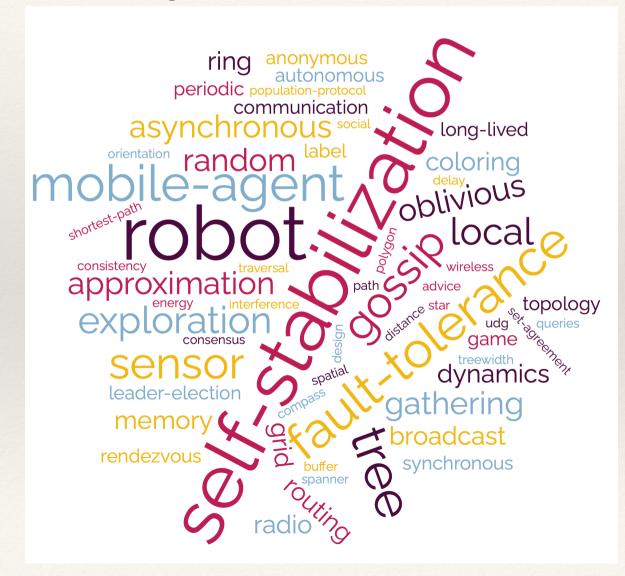
#### Childhood 2001-2005

Val de Nuria, Andros, Umeå, Smolenice, Mont Saint-Michel



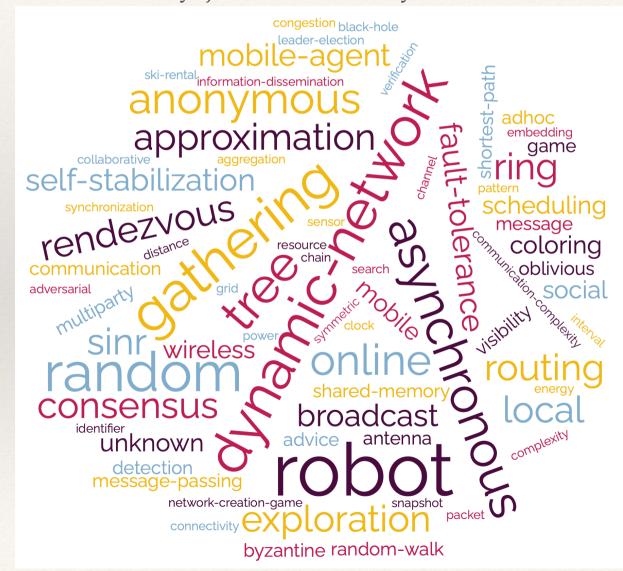
#### Adolescence 2006-2010

Chester, Castiglioncello, Villars-sur-Ollon, Piran, Sirince



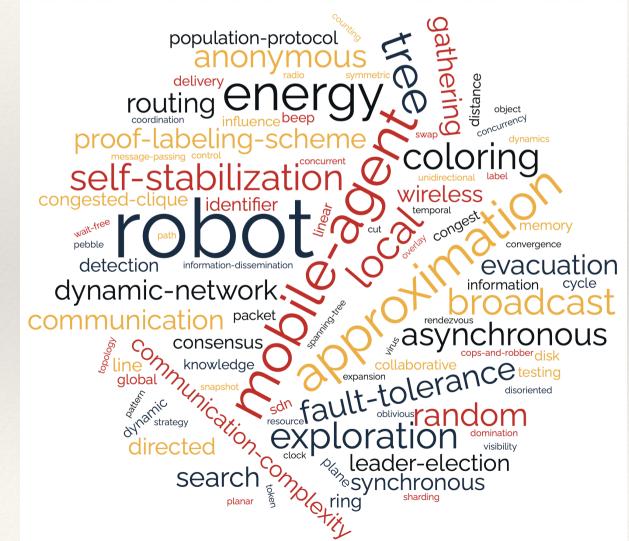
## Young Adulthood 2011-2015

Gdansk, Reykjavik, Ischia, Takayama, Montserrat

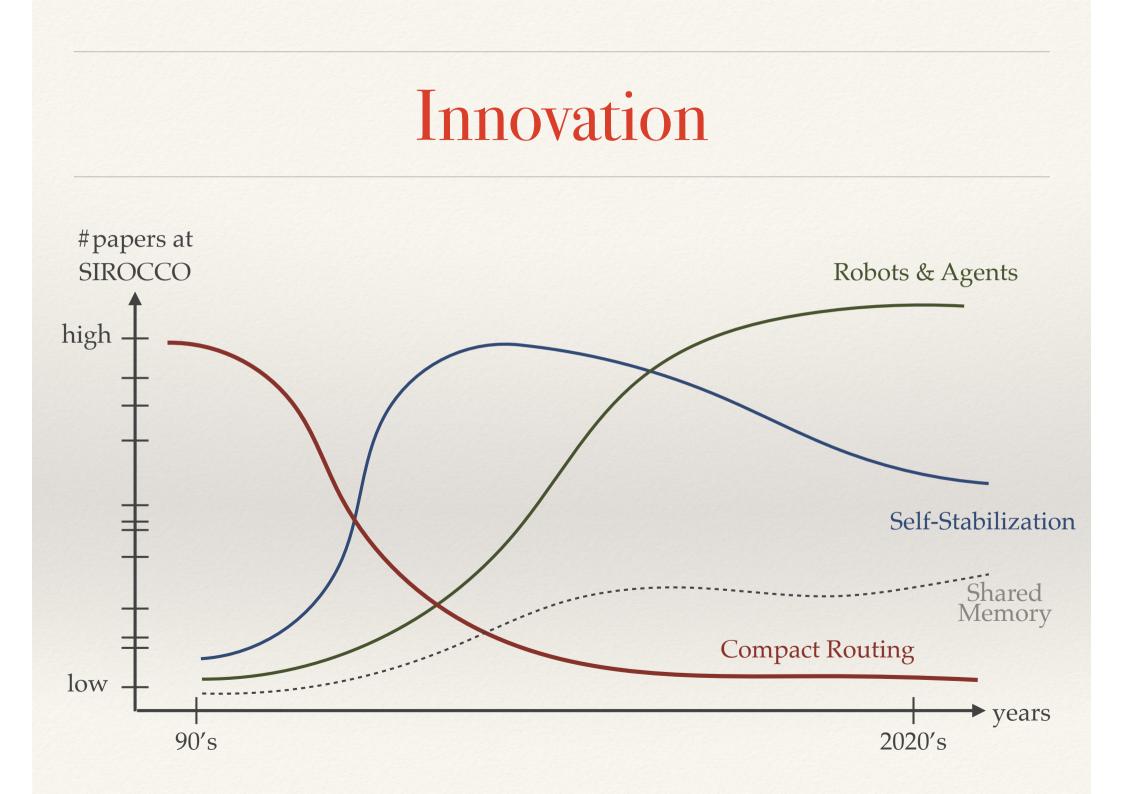


#### Middle Adulthood 2016-2023

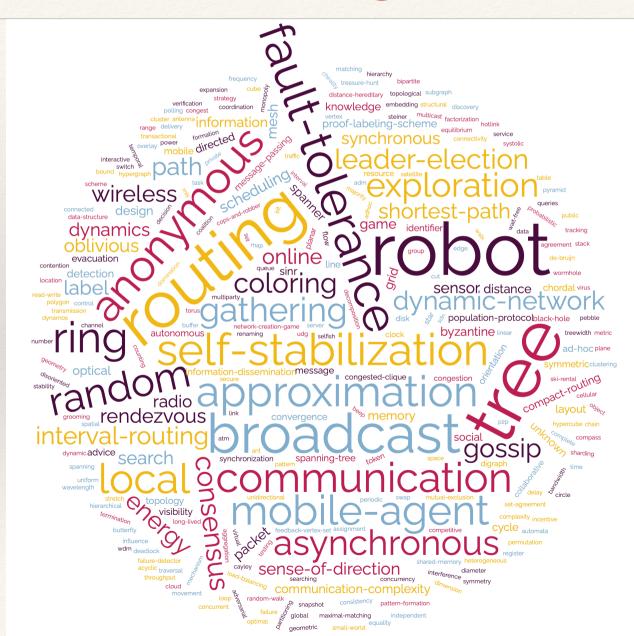
Helsinki, Porquerolles, Ma'ale HaHamisha, L'Aquila, Paderborn (visio), Wrocław, Paderborn, Alcala de Henares



## Trajectory vs. Specification



## Structural Knowledge vs. Efficiency



## Conclusion

- SIROCCO "globally support" innovation leading to better understanding of the *relationship* between computing and communication.
- SIROCCO "globally support" the study of the *interplay* between structural knowledge, communication, and computing
- But it is not entirely clear that this is what is characterizing SIROCCO now...

Thank you!